



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,581	06/15/2007	Lindsay K. Newcombe	TELAP042	8703

25920 7590 06/26/2009
MARTINE PENILLA & GENCARELLA, LLP
710 LAKEWAY DRIVE
SUITE 200
SUNNYVALE, CA 94085

EXAMINER

BOOTH, MICHAEL JOHN

ART UNIT	PAPER NUMBER
----------	--------------

3774

MAIL DATE	DELIVERY MODE
-----------	---------------

06/26/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,581	Applicant(s) NEWCOMBE ET AL.	
	Examiner MICHAEL J. BOOTH	Art Unit 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/13/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 04/13/2009 have been fully considered but they are not persuasive. The claims are written broadly and their broadest reasonable interpretation is used. Applicant argues on page 7 that the implant of Chen is not attached to the bone. The device by Chen is in fact capable of attaching to the bone, the limitation is intended use and fails to structurally limit the device. Applicant further argues that the implant is not coupled together, whereby the device is in fact coupled together. Applicant further argues that the device is not capable of articulating; however, the device is in fact capable of performing such function when enough force is applied. Applicant continues to argue on page 8 that the two portions can not move. However, they can in fact move depending upon how much force is applied upon them and how tight the screw is. Further, claim 1 recites "whereby the force may be accommodated" and the reference is capable of having a state in which the screws are not tight. Applicant continues to argue on page 9 that the portions are not capable of disengaging; however, they are capable of such when enough force is applied. Applicants continue to argue on page 10 that there is no biased state and it is not coupled. It is in fact coupled, as in "together", and is biased to the state whereby the locking member will set the threshold level for force to cause movement along with a biased state. On page 11, applicants argue that no movement is allowed; however, movement is in fact allowed depending upon the threshold level set. Thus, it is the examiners position that the rejection previous set forth is proper and is thus maintained.

Art Unit: 3774

The claims broadly written do in fact read upon the prior art of record. An amendment to the claims particular pointing out and distinctly claiming the applicants invention could overcome the rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-9 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen US Publication 2005/0027371 “Chen”.

With respect to claim 1; Chen discloses an apparatus for attaching a prosthetic limb to the bone of a patient to failsafe if excess force is applied to the limb, comprising a proximal and distal component to mount to the limb and a coupling body coupling together these components with freedom to articulate when excess force is applied. (Fig. 2).

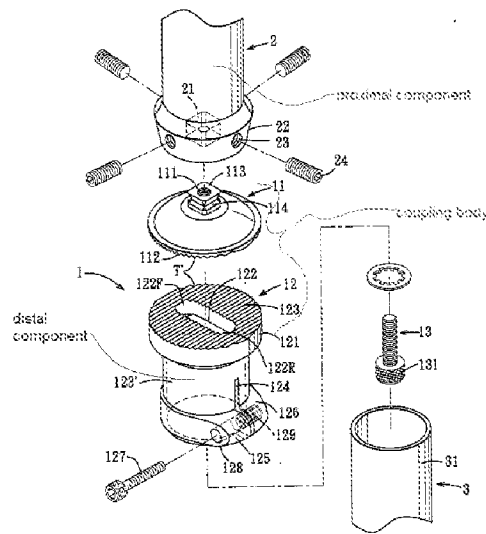
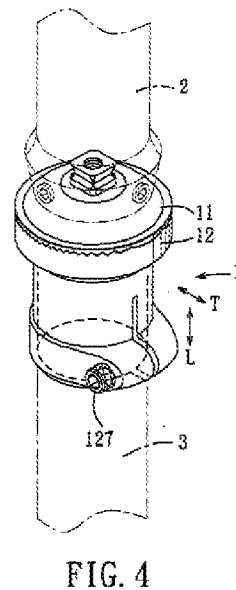
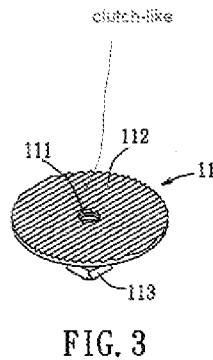


FIG. 2

With respect to claim 2; Chen discloses an apparatus incorporated into the bone implant component on a prosthetic limb. (Fig. 2). The prosthetic limb connecting to the distal component shown in figure 2.

With respect to claims 3, 5; Chen discloses a clutch-like (112 & 123) mechanism to rotationally couple the limb to the bone implant, able to decouple upon a threshold of torque, (Fig. 3 & 4), where the clutch-like mechanism will be disengaged if a torque exceeds a threshold level. An adjustment means by screw (127).



With respect to claim 6; Chen discloses a screw (127) capable of being adjusted towards or away from the clutch-like mechanism. (Fig. 4 above). The screw is adjusted and moves in a direction axially towards or away from the mechanism.

With respect to claim 7; Chen discloses a clutch-like mechanism having opposing sets of co-operating clutch teeth (112 & 123) where the teeth are symmetrical and the clutch-like mechanism may disengage with rotational direction of torque applied to the limb. (Fig. 2).

With respect to claim 8; Chen discloses an apparatus configured to be located external to the patient's skin and cause no tearing of the skin when the clutch-like mechanism disengages. Since the proximal component is connected to the bone, it is inherent the apparatus is configured to be located external to the patient's skin. From

Art Unit: 3774

figures disclosed by Chen, there is no reason to believe tearing of the skin would have occurred.

With respect to claim 9; Chen discloses a coupling body with a disengageable connector (13 & 111) that couples together the proximal and distal components so there is one fixed angle but also has freedom to articulate away from the fixed angle when a bending force exceeds the threshold level. (Fig. 6).

With respect to claim 20; Chen discloses in figure 6, a pin that if an excess force is applied to it, it will decouple.

With respect to claim 21; Chen discloses an apparatus that may be demounted by the user, through removal of the horizontal lock pin (45). [0004].

With respect to claims 22, 23; Chen discloses an apparatus with a disengageable connector. Chen further discloses an apparatus with a clutch-like mechanism. (figures 2 & 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 3774

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4 and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen US Publication 2005/0027371 "Chen" as applied to claims 1 and 3 above, and further in view of Capper et al USPN 6,605,118 "Capper".

With respect to claims 4, 10; Chen discloses an apparatus applied to the connector or clutch determines the threshold level of bending force on the limb that will cause disengagement of the connector or clutch. From figure 4 above, a force above the threshold level between 11 and 12 would have caused disengagement of the connector or clutch. However, Chen fails to disclose explicitly having a biasing means or member. The patent by Capper discloses in the abstract discloses a biasing force of a spring to disengage the gear from the lock pin (abstract). Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chen with a biasing force to provide a failsafe thereby setting a threshold and further disengaging if necessary.

With respect to claim 11; Chen discloses a pin (13) mounted on one component and co-operating with a socket (111) on the other component. (Fig. 6).

With respect to claim 12; Chen discloses a pin (13 & 24) mounted to allow it to move axially back and forth.

With respect to claim 13; Chen discloses a pin with a domed tip (13) where the pin can ride up the socket (111) wall depending on the force applied. (Compare figures 5 - 7).

With respect to claim 14; Chen discloses the domed tip to facilitate disengagement of the connector. From figure 6, the tip has freedom to move against the nut attached to.

With respect to claim 15; Chen discloses a disengageable connector configured to allow gyrating, when it is rotating in direction allowed by the thread.

With respect to claim 16; Chen discloses a pin (13) that is t-shaped, with curved/arcuate at the head of the pin, depending on the size of the pin and curved/arcuate angle at the head, to facilitate tilting of one component.

With respect to claim 17; Chen discloses the t-shape pin (13) tilting within the coupling body.

With respect to claim 18; Chen discloses a slot (111) that allows for the pin (13) to extend at a greater or lesser extent as the component tilts, restricting the tilting degree of freedom. The pin will limit the tilting.

With respect to claim 19; Chen discloses the head of a pin (127) orthogonal to that of the head of the other pin (13).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 3774

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. BOOTH whose telephone number is (571)270-7027. The examiner can normally be reached on Monday thru Thursday 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Isabella can be reached on (571) 272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. J. B./
Examiner, Art Unit 3774

/William H. Matthews/
Primary Examiner, Art Unit 3774

Application/Control Number: 10/590,581
Art Unit: 3774

Page 10